

REMARKS

In the present case, claims 21 and 22 have been amended. Claims 49 to 55 have been added. Claims 1 to 55 are now in this case.

Claims 1 to 48 were rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 5,798,458 to Monroe ("the Monroe patent").

The present invention relates to system and methods for wirelessly transmitting or minimizing aircraft operational data from an aircraft when a sensor detects the occurrence of an event or an accident. The aircraft operational data can be stored in a black box, and can also be compressed to improve the speed of transmission. Additionally, burst transmission techniques can be used to transmit the data in a short period of time. Thus, the present invention provides the ability for critical aircraft operational data that occurs during an accident to be immediately transmitted to ground-based receivers, thereby eliminating or minimizing the problem of finding the aircraft's black box.

The Monroe patent discloses an acoustical sensor system that merely records acoustical data that may occur during a catastrophe. With regard to transmitting the acoustic data, the Monroe patent discloses that a "recorder would make an historic record for archive and reconstruction purposes", and states that where desired, "control stations would have selective access to the data on a near or real time basis." See, the Monroe patent at column 3, lines 13-26. Thus, the Monroe patent does not teach or suggest a system or method wherein the wireless transmission of aircraft operational data is enabled upon the sensing of an event. The Monroe patent, however, does not teach or suggest transmitting any data from the aircraft upon sensing the occurrence of an event or an accident. Thus, the Monroe patent does not solve the problem of having to find an aircraft's black box after an accident.

Referring now to claim 1 of the present invention, that claim specifies a system that has one or more black boxes that store aircraft operational data, one or more wireless transmitters that can transmit the stored aircraft operational data from the aircraft, and one or more sensors that wirelessly transmit the aircraft that can enable the wireless transmission of the aircraft operational data *upon the sensing of an event*. As previously described, the Monroe

patent fails to teach or suggest the sensors enabling the transmission of aircraft operational data upon the sensing of an event, as required by claim 1. Accordingly, allowance of claim 1 is respectfully requested.

Claims 2-16 and newly added claim 49 all depend, either directly or indirectly from claim 1, and therefore incorporate each element of claim 1. Since the Monroe patent does not teach or suggest the sensors enabling the transmission of the aircraft operational data from the aircraft upon sensing the occurrence of an event, the Monroe patent also does not teach or suggest the elements of claims 2-16 and claim 49. Accordingly, allowance of claims 2-16 and claim 49 is respectfully requested.

Claim 17 specifies a system for transmitting aircraft operational data that includes a flight data recorder, a cockpit voice recorder, one or more wireless transmitters and one or more sensors that can transmit aircraft operational data from the flight data recorder and the cockpit voice recorder upon sensing the occurrence of an event. As previously described, the Monroe patent does not teach or suggest the transmission of aircraft operational data from the aircraft upon sensing the occurrence of an event, as required by claim 17. Further, the Monroe patent does not teach or suggest transmitting data from the flight data recorder or the cockpit voice recorder upon the detection of an event. Accordingly, allowance of claim 17 is respectfully requested.

Claims 18 to 25 and newly added claim 50 all depend, either directly or indirectly from claim 17, and therefore incorporate each element of claim 17. Since the Monroe patent does not teach or suggest the sensors enabling the transmission of the aircraft operational data from the aircraft upon sensing the occurrence of an event, the Monroe patent also does not teach or suggest the elements of claims 18 to 25 and claim 17. Accordingly, allowance of claims 18 to 25 and claim 50 is respectfully requested.

Claim 26 is method claimed that specifies the steps of storing aircraft operational data in a black box, sensing the occurrence of an abnormal operational event in aircraft, and then wirelessly transmitting the stored data upon sensing the occurrence of the abnormal operational event. As previously discussed, the Monroe patent does not teach or suggest the step of transmitting stored aircraft operational data upon sensing the occurrence of an abnormal

operational event. Thus, the Monroe patent cannot anticipate claim 26. Accordingly, allowance of claim 26 is respectfully requested.

Claims 27 to 35 and newly added claim 51 all depend, either directly or indirectly from claim 26 and therefore incorporate each step of claim 26. Since the Monroe patent does not teach or suggest the step of enabling transmission of stored aircraft operational data upon the sensing of an abnormal operational event, the Monroe patent also does not teach or suggest the steps of claims 27 to 35 and claim 51.

Claim 36 is method claim that specifies the steps of storing a first set of aircraft operational data in a flight data recorder, storing a second set of aircraft operational data in a cockpit voice recorder, sensing the occurrence of an abnormal operational event in the aircraft and wirelessly transmitting the first and second set of data upon sensing the occurrence of an abnormal operational event. As previously discussed, the Monroe patent does not teach or suggest transmitting data upon sensing the occurrence of an abnormal operational event. Further, the Monroe patent does not teach or suggest transmitting data from the flight data recorder or from the cockpit voice recorder upon sensing an abnormal operational event. Thus, the Monroe patent does not anticipate claim 36. Accordingly, allowance of claim 36 is respectfully requested.

Claims 37 and 38, as well as newly added claim 52 all depend, either directly or indirectly, from claim 36, and therefore incorporate each step of claim 36. Since the Monroe patent does not teach or suggest transmitting data upon sensing an abnormal operational event, as well as other steps required by claim 36, the Monroe patent also does not teach or suggest the steps of claims 37, 38 and 52. Accordingly, allowance of claims 37, 38 and 52 is respectfully requested.

Claim 39 is a system claim that requires a black box, a processor/modem that can compress data from the black box, a transmitter and a sensor that enables transmission of compressed data from an aircraft upon sensing the occurrence of an event. As previously discussed, the Monroe patent does not teach or suggest a sensor that enables transmission of data from the aircraft upon the sensing of an occurrence of an event. Further, the Monroe patent does not teach or suggest a processor modem that receives aircraft operational data from a black box

and compresses that data before transmission. Thus, the Monroe patent cannot anticipate claim 39. Accordingly, allowance of claim 39 is respectfully requested.

Claims 40 to 43 and newly added claim 53 all depend, either directly or indirectly, from claim 39, and therefore incorporate each element of claim 39. Since the Monroe patent does not teach or suggest the sensors required by claim 39 or the processor/modem required by claim 39, the Monroe patent also does not teach or suggest the elements of claims 40 to 43 and claim 53. Accordingly, allowance of claims 40 to 43 and claim 53 is respectfully requested.

Claim 44 is a system claimed that requires a flight data recorder, a cockpit voice recorder a processor that compresses data, a transmitter and a sensor that enables the wireless transmission of the compressed data from the flight data recorder and the cockpit voice recorder upon the sensing of an occurrence of an event. As previously discussed, the Monroe patent does not teach or suggest a sensor that enables transmission of data from an aircraft upon the occurrence of an event. Further, the Monroe patent does not teach or suggest compressing data from a flight data recorder or from a cockpit voice recorder before transmission thereof. Thus, the Monroe patent cannot anticipate claim 44. Accordingly, allowance of claim 44 is respectfully requested.

Newly added claim 54 depends from claim 44, and therefore incorporates each element of claim 44. Since the Monroe patent does not teach or suggest the elements required by claim 44, the Monroe patent also does not teach or suggest the elements of claim 54. Accordingly, allowance of claim 54 is respectfully requested.

Claim 45 is a method claimed that requires the steps of storing aircraft operational data in a black box, compressing the data, sensing the occurrence of an abnormal operational event in the aircraft and the wireless transmitting compressed data upon the sensing of the occurrence of an abnormal operational event. As previously discussed, the Monroe patent does not teach or suggest wirelessly transmitting aircraft data from an aircraft upon the sensing of the occurrence of an abnormal operational event. Thus, the Monroe patent cannot anticipate claim 45. Accordingly, allowance of claim 45 is respectfully requested.

Claims 46 and 47, as well as newly added claim 55, all depend, either directly or indirectly, from claim 45, and therefore incorporate each step of claim 45. Since the Monroe patent does not teach or suggest the steps required by claim 45, the Monroe patent also does not teach or suggest the steps of claims 46, 47 and 55. Accordingly, allowance of claims 46, 47 and 55 is respectfully requested.

Claim 48 is a system claim that requires a transmitter and one or more sensors, wherein the transmitter can transmit data from the aircraft in response to the detection of an abnormal operational event by one of the sensors. As previously discussed, the Monroe patent does teach or suggest a transmitter that can transmit data in response to the detection of an abnormal operating event. Thus, the Monroe patent cannot anticipate claim 48. Accordingly, allowance of claim 48 is respectfully requested.

As it is believed that all of the rejections set forth in the Office Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 to overcome any additional objections.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

By _____

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